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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,969	11/14/2003	Kenichi Kawase	09792909-5716	3182
26263	7590	11/13/2006		
SONNENSCHN NATH & ROSENTHAL LLP P.O. BOX 061080 WACKER DRIVE STATION, SEARS TOWER CHICAGO, IL 60606-1080				
			EXAMINER WEINER, LAURA S	
			ART UNIT 1745	PAPER NUMBER

DATE MAILED: 11/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/713,969

Applicant(s)

KAWASE ET AL.

Examiner

Laura S. Weiner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 4-5, and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 is rejected because it is unclear what is meant by "the anode material layer ...consisting of a simple substance".

Claim 5 is rejected because the claim should cite that "the cyclic carbonic acid ester having unsaturated bonds is at least one of vinylethylene carbonate or vinylene carbonate". This are the cyclic carbonic acid esters not in addition to.

Claim 7 is rejected because it is unclear what is meant by "includes a holding body".

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Ohshita et al. (6,511,776):

Ohshita et al. teaches a battery comprising a positive electrode, a negative electrode and a polymer electrolyte containing a nonaqueous electrolyte solution comprising vinylene carbonate in a concentration of 0.1-90 vol%. Ohshita et al. teaches in column 3, lines 40-60, that the electrolyte solution contains vinylene carbonate in a concentration of 0.1-80 vol% or more preferably 0.1-3 vol% and teaches that the solute can be LiPF_6 , LiBF_4 , etc. Ohshita et al. teaches in column 4, lines 31-50, that the negative electrode can comprise metal oxides having lower potentials than the positive electrode such as SnO_2 , SnO , SiO_2 , SiO , etc. Particularly, in order to further improve the preservation characteristics of the battery, it is preferably to use the metal oxides materials. The reason is that the large surface areas of the metal oxides contribute to the remarkable effect of the layers and the metal oxides react with the vinylene carbonate in the nonaqueous electrolyte solution to form more stable layers. Ohshita et al. teaches in column 5, lines 24-35, that the positive electrode comprised LiCoO_2 and

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teaches in column 6, lines 15-35, that the positive electrode, the negative electrode was contained in a battery case.

4. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Nakanishi et al. (6,551,743).

Nakanishi et al. teaches a battery comprising a positive electrode comprising $\text{Li}_x\text{Mn}_{2-y-z}\text{Ni}_y\text{M}_z\text{O}_q$ and a negative electrode comprising a metal oxide such as SnO_2 , SnO , etc. The electrolyte can comprise a cyclic carbonic ester such as vinylene carbonate, etc. and a solute such as LiPF_6 , LiBF_4 , etc. (see column 3).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-9 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ohshita et al. (6,511,776).

Ohshita et al. teaches a battery comprising a positive electrode, a negative electrode and a polymer electrolyte containing a nonaqueous electrolyte solution comprising vinylene carbonate in a concentration of 0.1-90 vol%. Ohshita et al. teaches in column 3, lines 40-60, that the electrolyte solution contains vinylene carbonate in a concentration of 0.1-80 vol% or more preferably 0.1-3 vol% and teaches that the solute

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can be LiPF₆, LiBF₄, etc. Ohshita et al. teaches in column 4, lines 31-50, that the negative electrode can comprise metal oxides having lower potentials than the positive electrode such as SnO₂, SnO, SiO₂, SiO, etc. Particularly, in order to further improve the preservation characteristics of the battery, it is preferably to use the metal oxides materials. The reason is that the large surface areas of the metal oxides contribute to the remarkable effect of the layers and the metal oxides react with the vinylene carbonate in the nonaqueous electrolyte solution to form more stable layers. Ohshita et al. teaches in column 5, lines 24-35, that the positive electrode comprised LiCoO₂ and teaches in column 6, lines 15-35, that the positive electrode, the negative electrode was contained in a battery case.

In the event any differences can be shown for the product of the product by process claim 2, as opposed to the product taught by Ohshita et al., such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results. *In re Thrope* 227 USPQ 964; (Fed. Cir. 1985).

With respect to the product by process claim 2, the determination of patentability is based upon the product itself not upon the method of its production. *In re Thrope* 227 USPQ 964; *In re Brown* 173 USPQ 685; *In re Bridgeford* 149 USPQ 55; *In re Wertheim* 191 USPQ 90. Any difference imparted by the product by process limitations would have been obvious to one having ordinary skill in the art at the time the invention was made because where the Examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the Applicants to establish that their

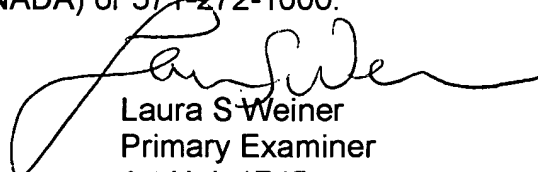
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product is patentably distinct. *In re Brown* 173 USPQ 685 and *In re Fessmann* 180 USPQ 324.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura S. Weiner whose telephone number is 571-272-1294. The examiner can normally be reached on M-F (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Laura S. Weiner
Primary Examiner
Art Unit 1745

November 9, 2006